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To:
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PALMERTON ZINC SITE
FACT SHEET
OCTOBER 1984

The Palmerton Zinc Site covers approximately 265 acres in Palmerton, Carbon County, Pennsylvania, 25 miles north of Allentown, Pennsylvania. The site is divided into two sections. The western part of the site is located in the northern bank of the Lehigh River where it meets Aquashicola Creek. The eastern part of the site, known as the East Plant and slag pile, is located on the southern bank of Aquashicola Creek. In addition to the two site areas, about 1200 acres of land are covered with sparse vegetation or are barren.

Zinc smelting operations began on the western portion of the site in 1898. In 1911 a smelter was constructed on the eastern portion of the site, and smelting began there in 1915. During smelting operation fume dusts were emitted into the air. These fume dusts were approximately 8% cadmium and 40% zinc. Sulfur oxides were also given off. Process wastes or slag were disposed on the East Plant site beginning in 1913. Approximately 33 million tons of slag have accumulated. The slag contains compounds of zinc, cadmium, lead, and copper.

A baghouse operation was constructed at the smelter to reduce fume dust emissions. In May 1980 the operation was improved and cadmium emissions dropped to 50 pounds a day from between 154 and 198 pounds a day. No chemical treatment was performed on the slag prior to disposal, although the slag was graded and segregated according to the amount of zinc remaining in the material.

In May 1979 the National Enforcement Investigation Center conducted a study in the Palmerton area and sampled seven wells in the vicinity of the East Plant. Six of the seven wells showed elevated levels of cadmium. The Palmerton Zinc Site was added to the National Priorities List in December 1982.

As the next step in the EPA's remedial response to the Palmerton Zinc Site, a Remedial Investigation/Feasibility Study (RI/FS) will be conducted. The objectives of the RI/FS are

- to determine the concentration, extent, and depth of the surface soil contamination around the smelter
- to determine the effect that the soil contamination has had on the environment
- to determine the concentrations of heavy metals in crops, forage, and garden vegetables in the area
- to evaluate the present surface water runoff patterns in the vicinity of the slag pile

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- to determine the effectiveness of the present collection and treatment system and determine the effect that the slag pile is having on Aquashicola Creek
- to determine the extent of groundwater contamination
- to evaluate the extent of fume dust contamination by collecting air samples
- to analyze and summarize all site investigation data
- to identify preliminary remedial technologies for dealing with site problems and to identify and evaluate potential remedial alternatives
- to identify potential risks to the public health and to the environment
- to identify the cost-effective remedial action or actions to be taken at the Palmerton Zinc Site.